IN THE CLAIMS:

Please amend claim 73, and add new claims 74-95. A clean copy of all the pending claims in the application is as follows:

56. An external infusion system for infusion of a fluid into a body, the external infusion system comprising:

an infusion device for infusion of a fluid into a body, wherein the infusion device includes a processor;

a bolus estimator that utilizes externally supplied values to estimate an amount of fluid to be infused based upon an estimate of a material to be ingested by the body; and

a programmer for interfacing with the bolus estimator, the programmer including:

at least one processor to interface with the bolus estimator to process data for the bolus estimator;

a housing adapted to contain the at least one processor;

at least one display including at least one touch screen element to interface with at least one of the at least one processor and the bolus estimator;

at least one button to interface with at least one of the at least one processor and the bolus estimator;

at least one audio indication device coupled to the at least one processor to provide an audio indication; and

at least one portable power supply contained within the housing of the programmer to provide power to at least one of the at least one processor; and

wherein the externally supplied values for the bolus estimator are input into the programmer using either the at least one button or at least one touch screen element to estimate the amount of fluid to be infused.

57. An external infusion system according to claim 56, wherein the bolus estimator includes the capability to calculate a correction bolus based upon a current characteristic value and a target characteristic value.

58. An external infusion system according to claim 57, wherein the bolus estimator includes a liquid sensitivity that is used to determine the amount of fluid to be infused to calculate the correction bolus.

59. An external infusion system according to claim 58, wherein the fluid to be infused is insulin, and where the material to be taken in are carbohydrates.

60. An external infusion system according to claim 56, wherein the fluid to be infused is insulin, and where the material to be taken in are carbohydrates.

61. An external infusion system according to claim 56, wherein the bolus estimator includes a lockout to prevent the calculation of a bolus for a predetermined period of time after a bolus estimated by the bolus estimator.

62. An external infusion system according to claim 56, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

63. An external infusion system according to claim 56, wherein the externally supplied values are codes representing a carbohydrate value of specific meals.

64. An external infusion system according to claim 56, further including a duration factor to determine a value of how long a previously infused amount of fluid will remain active in the body, wherein the determined value is used to adjust the amount of the fluid to be infused into the body.

65. A method of estimating a bolus for an infusion system for infusion of a fluid into a body, the method comprising the steps of:

providing externally supplied values to estimate an amount of fluid to be infused based upon an estimate of a material to be ingested by the body; and

providing a programmer for interfacing with the externally supplied values, the programmer including:

at least one processor to utilize the externally supplied values;

a housing adapted to contain the at least one processor;

at least one display including at least one touch screen element to interface with at least one of the at least one processor;

at least one button to interface with at least one of the at least one processor;

at least one audio indication device coupled to the at least one processor to provide an audio indication; and

at least one portable power supply contained within the housing of the programmer to provide power to at least one of the at least one processor; and

inputting the externally supplied values into the programmer using either the at least one button or at least one touch screen element; and

calculating an estimate of the amount of fluid to be infused.

66. A method according to claim 64, further comprising the step of calculating a correction bolus based upon a current characteristic value and a target characteristic value.

67. A method according to claim 66, further comprising the step of using a liquid sensitivity to determine the amount of fluid to be infused to calculate the correction bolus.

68. A method according to claim 67, wherein the fluid to be infused is insulin, and where the material to be taken in are carbohydrates.

69. A method according to claim 65, wherein the fluid to be infused is insulin, and where the material to be taken in are carbohydrates.

70. A method according to claim 65, further comprising the step of using a lockout to prevent the calculation of a bolus for a predetermined period of time after a bolus estimated by the bolus estimator.

71. A method according to claim 65, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

72. A method according to claim 65, wherein the supplied values are codes representing a carbohydrate value of specific meals.

73. (Amended) A method according to claim 65, further comprising the step of using a duration factor to determine a value of how long a previously infused amount of liquid will remain active in the body, and using the determined value to adjust the amount of the fluid to be infused.

74. (New) An external infusion system for infusion of a fluid into a body, the external infusion system comprising:

interfacing means providing a programmer for interfacing with externally supplied values to estimate an amount of fluid to be infused based upon an estimate of a material to be ingested by the body, the programmer including:

at least one processor to utilize the externally supplied values;

a housing adapted to contain the at least one processor;

at least one display including at least one touch screen element to interface with at least one of the at least one processor;

at least one button to interface with at least one of the at least one processor;

at least one audio indication device coupled to the at least one processor to provide an audio indication; and

at least one portable power supply contained within the housing of the programmer to provide power to at least one of the at least one processor;

inputting means for inputting the externally supplied values into the programmer using either the at least one button or the at least one touch screen element; and

calculating means for calculating an estimate of the amount of fluid to be infused into the body based upon the externally supplied values and the estimate of the material to be ingested by the body.

75. (New) An external infusion system according to claim 74, wherein the calculating means is further used for calculating a correction bolus based upon a current characteristic value and a target characteristic value.

76. (New) An external infusion system according to claim 75, wherein the calculating means is further used with a liquid sensitivity to calculate the correction bolus.

77. (New) An external infusion system according to claim 76, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

78. (New) An external infusion system according to claim 74, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

79. (New) An external infusion system according to claim 74, further comprising infusing means for infusing the estimate of the amount of fluid into the body.

80. (New) An external infusion system according to claim 79, further comprising lockout means for preventing calculation of the estimate of the amount of fluid to be infused for a predetermined period of time after infusion of the amount of fluid into the body by the infusing means.

81. (New) An external infusion system according to claim 74, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

82. (New) An external infusion system according to claim 74, wherein the externally supplied values are codes representing a carbohydrate value of specific meals.

83. (New) An external infusion system according to claim 74, wherein the calculating means is further used with a duration factor for determining a duration of how long a previously infused amount of fluid will remain active in the body, and the determined duration is used to adjust the estimate of the amount of fluid to be infused.

84. (New) In an infusion system comprising an infusion device for infusing a fluid into a body of a user and a programmer including at least one processor, a housing adapted to contain the at least one processor, at least one display to interface with at least one of the at least one processor, at least one data input device to interface with at least one of the at least one processor, and at least one portable power supply contained within the housing to provide power to at least one of the at least one processor, a method of estimating a bolus amount of fluid to be infused into the body, the method comprising the steps of:

inputting externally supplied values into the programmer to estimate the bolus amount of fluid to be infused based upon an estimate of a material to be ingested by the body, wherein the externally supplied values are input using the at least one data input device;

calculating an estimate of the bolus amount of fluid to be infused into the body based upon the externally supplied values and the estimate of the material to be ingested by the body; and

providing the estimate of the bolus amount of fluid to the user for use with the infusion device.

85. (New) A method according to claim 84, wherein the at least one data input device is at least one touch screen element to interface with at least one of the at least one processor.

86. (New) A method according to claim 84, wherein the at least one data input device is at least one button to interface with at least one of the at least one processor.

87. (New) A method according to claim 84, further comprising the step of calculating a correction bolus based upon a current characteristic value and a target characteristic value.

88. (New) A method according to claim 87, wherein the correction bolus is calculated further based upon a liquid sensitivity.

89. (New) A method according to claim 88, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

90. (New) A method according to claim 84, wherein the fluid to be infused is insulin, and the material to be ingested are carbohydrates.

91. (New) A method according to claim 84, further comprising the step of programming the infusion device to infuse the estimate of the bolus amount of fluid into the body.

92. (New) A method according to claim 91, further comprising the step of providing a lockout to prevent calculation of the estimate of the bolus amount of fluid to be infused for a predetermined period of time after infusion of the bolus amount of fluid into the body by the infusion device.

93. (New) A method according to claim 84, wherein the externally supplied values are codes representing a carbohydrate value of specific foods.

94. (New) A method according to claim 84, wherein the externally supplied values are codes representing a carbohydrate value of specific meals.

95. (New) A method according to claim 84, further comprising the steps of:

determining a duration of how long a previously infused amount of liquid will remain active in the body based upon a duration factor; and

adjusting the estimate of the bolus amount of fluid to be infused based upon the determined duration.